

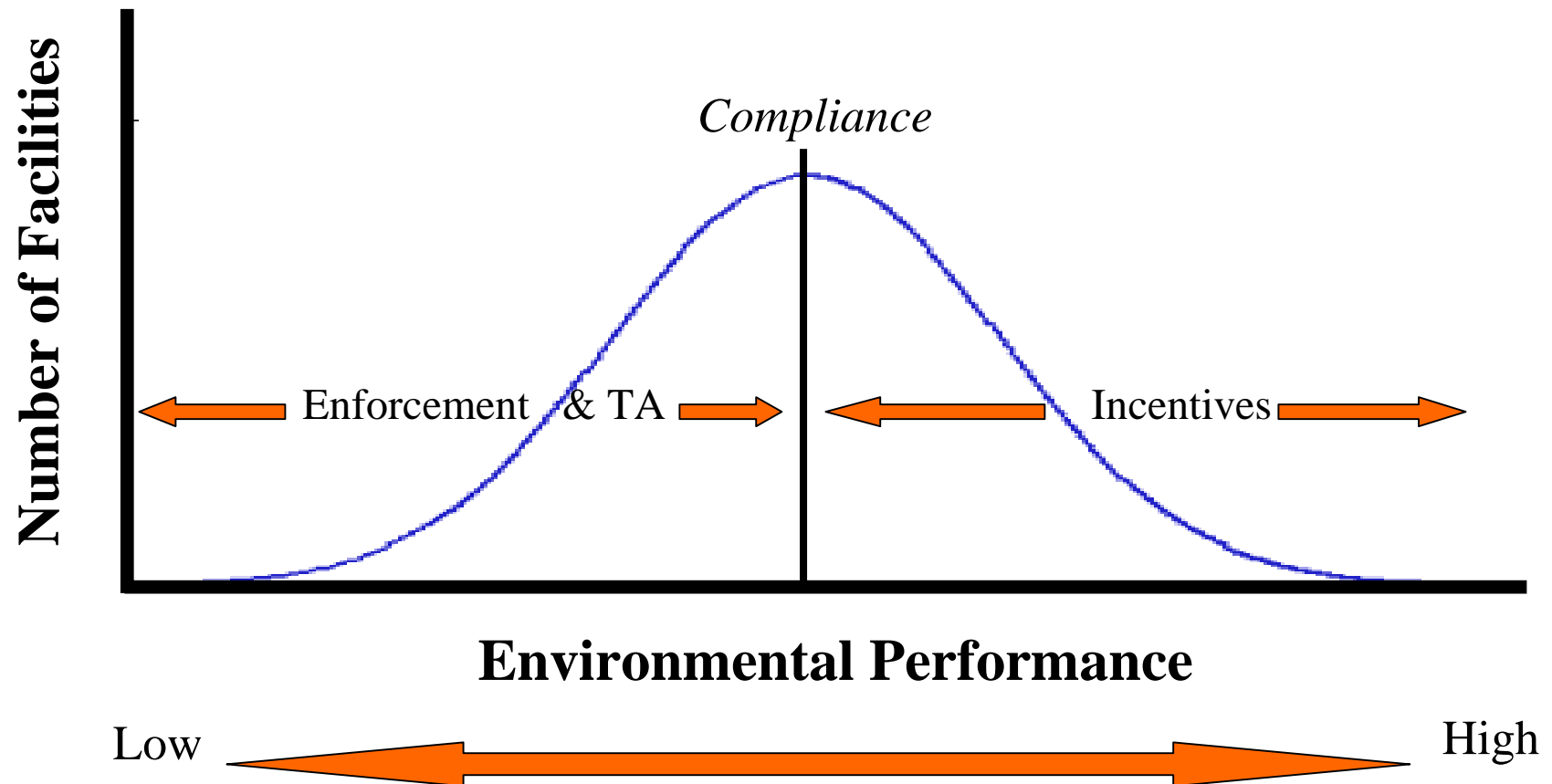
# *Oregon Green Permits : Exploring RCRA Flexibility*

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# Regulatory Agency Tools



# Oregon Green Permits Program: Overview



Enacted in 1997 & Rules adopted in 1999

Encourages use of innovative approaches that achieve environmental results that are significantly better than otherwise required by law

Allows waivers of state regulatory requirements

# Green Permits: Requirements for Participants




“Robust” environmental management system (ISO 14000 or comparable)

Demonstrated environmental performance improvements that go beyond compliance

- Share data on trends & recent results

Stakeholder involvement: two-way dialogue

# Green Permits: Benefits (incentives) to Participants



Single Point of Contact to address wide range of issues

Enforcement discretion, using EMS to address root cause of violations


Public recognition

Expedited permit processing

Consolidated reporting

Flexible air permitting

# LSI Logic & Subpart BB



## LSI Logic

- Semiconductor manufacturer
- Constructed Gresham, OR facility in 1996
- Volunteered to be 1st Green Permit Pilot

## Subpart BB Applies to LSI's operations

- Use volatile organics (isopropyl alcohol)
- Large Quantity Generator w/ HW tanks
- NOT a Major Source under Title V Air Regs

## LSI waste (and secondary product) solvent tanks



# Why Did LSI Seek BB Flexibility?




Believe current systems meet intent of BB  
Additional BB procedures add costs (\$25K annually) with no additional environmental benefit

Impractical & potentially unsafe to access relevant piping

LSI interested in testing incentive component of Green Permits

# Technical Analysis of LSI's Alternative to Subpart BB



State Air Discharge Permit (minor source)  
w/ monitoring, controls & reporting

LSI's inspections:

- area under piping vs. pipes themselves (BB)
- twice daily vs. once/month (BB)

LSI's air emissions controls:

- All vapor leaks captured vs. no controls (BB)
- Liquid leaks - majority of VO captured


## LSI stainless steel solvent waste piping



LSI “Subfab” w/ piping for dozens of raw chemicals and waste



# Technical Analysis of BB Alternative, con't



## Prevention:

- mechanical connections double-contained & remainder are welded
- stringent quality & performance specs for stainless steel piping

Remaining Question: can LSI's inspections detect rare liquid drips of VO as well as BB specifications?

Liquid leaks from gravity drained to floor-level device



# Why Does Oregon DEQ Support Proposed BB Flexibility?:



Technical justification = intent of rule met

- Path specified by BB not followed, but desired outcome achieved

Diminishing marginal returns

- opportunity cost = less resources devoted to reducing significant impacts

Accountability assured through Annual Reporting of:

- functioning of EMS, and
- overall performance improvements

# EPA & DEQ Concerns and Responses



## Setting national precedent

- Innovations programs are labs for experimentation
- Program adheres to EPA-ECOS principles
- MOA between DEQ & EPA Region 10 assures collaborative & thorough reviews

## How can results be compared to BB?

- Concentrations of potential fugitive emissions too small to measure
- State Air Permit requires monitoring of emissions
- Green Permit requires continual performance improvements

# ECOS-EPA Agreement:

## Does Green Permits Meet Principles?

### Measuring & Verifying Results:

- Required annual reporting of measurable performance & functioning of EMS

### Accountability & Enforcement

- Regulatory flexibility lost -- including BB alternative -- if facility no longer meets criteria

### Stakeholder Involvement

- y DEQ: public notice / meetings on program & media coverage of pilot facilities
- y LSI: On-going commitment in Permit

# Status of the Subpart BB Proposal



January 2002:

- EPA Region 10 determined justification exists for flexibility
- Likely mechanism = Site-specific rule for LSI drafted by EPA

2002 and Beyond

- New mechanisms for providing flexibility?

# Resources & References



DEQ Green Permits Program:

[www.deq.state.or.us/programs/greenpermits](http://www.deq.state.or.us/programs/greenpermits)

EPA National Performance Track:

[www.epa.gov/performance-track/](http://www.epa.gov/performance-track/)

EPA Innovations Strategy:

[www.epa.gov/innovations/strategy](http://www.epa.gov/innovations/strategy)